

ABSTRACT OF THE DISCLOSURE

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30 A system and method for connecting a user device to a network where the user device settings, the network settings, or both are unknown include intercepting packets transmitted by the user device and modifying the packets to be compatible with the network. The system and method are particularly suited for use by mobile computers, such as laptop computers, which are connected to various foreign networks. Depending upon the particular application, a device may be carried with the mobile computer, or attached as a node on the network. The device automatically determines

35 the network settings of the user device and/or the network and modifies packets appropriately so that the user device can communicate over the network without having to reconfigure the user device with appropriate settings for each network it may encounter. Communication settings such as network address, gateway, proxy address, etc. are automatically determined using various techniques including intercepting

40 Address Resolution Protocol (ARP) messages transmitted by the user device to an intended device (such as a gateway or router) which is not present on the current network and replying to the message with a hardware address of the translating device to pretend or proxy as the intended device. The translating device may operate in a promiscuous mode to intercept packets transmitted by the user device which would

45 otherwise be ignored or dropped by devices on the network. The translating device may also provide Dynamic Host Control Protocol (DHCP) service to a mobile host where the service is not available on the currently attached network. Alternatively, the translator may use an available DHCP server to provide appropriate translation of messages for a user device configured with a static or fixed IP address.